

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 7,220,552
DATED : May 22, 2007
INVENTOR(S) : Crabtree, Gerald R., et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In The Claims:

- Column 17, Line 6: Please add --a ligand for an-- after the word is.
- Column 17, Line 7: Please add --a ligand for an--after the word is.
- Column 18, Line 7: Please add --a ligand for an-- after the word is.
- Column 18, Line 8: Please add --a ligand for an-- after the word is.
- Column 18: Please delete claim 15.
- Column 18: Please renumber claim '16' to read as claim --15--.
- Column 18: Please renumber claim '17' to read as claim --16--.

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PATENT NO. 7,220,552

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PETITION FOR CERTIFICATE OF CORRECTION Address to: Mail Stop Certificate of Correction Branch Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450	Attorney Docket	STAN-166
	First Named Inventor	CRABTREE, GERALD R.
	Patent Number	7,220,552
	Issue Date	May 22, 2007
	Application Number	09/716,054
	Filing Date	November 17, 2000
	Title: <i>“BIFUNCTIONAL MOLECULES AND THEIR USE IN THE DISRUPTION OF PROTEIN-PROTEIN INTERACTIONS”</i>	

Sir:

Transmitted herewith for filing is a Certificate of Correction for the above-identified patent.

In The Claims:

- Column 17, Line 6: Please add --**a ligand for an**-- after the word is.
- Column 17, Line 7: Please add --**a ligand for an**--after the word is.
- Column 18, Line 7: Please add --**a ligand for an**-- after the word is.
- Column 18, Line 8: Please add --**a ligand for an**-- after the word is.
- Column 18: Please delete claim 15.
- Column 18: Please renumber claim ‘**16**’ to read as claim --**15**--.
- Column 18: Please renumber claim ‘**17**’ to read as claim --**16**--.

Enclosed is a copy of the claims from the last entered amendment filed October 26, 2006. Also enclosed is a copy of the Examiner’s Amendment from the Notice of Allowance and the Interview Summary mailed January 26, 2007. It is summarized in the Interview Summary that Examiner Cook and Attorney Baba “agreed to include the allowable limitation in independent claims 16 and 49”. Based on this agreement it is evident that the imperative language --a ligand for an-- was inadvertently omitted in the Examiner’s Amendment. Claim 15 (previously claim 65) should have also been deleted since the limitation was allowed in independent claims 16 and 49.

The processing fees set forth in §1.20(a) is being submitted herewith. Commissioner is hereby authorized to charge any underpayment of fees under 37 C.F.R. § 1.20, which may be required by this paper, or to credit any overpayment, to Deposit Account No. 50-0815 order number STAN-166.

Respectfully submitted,

BOZICEVIC, FIELD & FRANCIS LLP

Date: October 8, 2008

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EXAMINERS AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Edward J. Baba (Reg. No. 52,4581) on 1/19/07.

AMENDMENTS TO THE CLAIMS

I. Cancel claims 24, 55, 66-67, 69-73 and 75-76 with out prejudice or disclaimer.

II. In claim 16 line 8, after "linking group" insert ----wherein said target protein ligand is NFAT and said blocking protein ligand is FKBP----.

III. In claim 49 line 10, after "linking group" insert ----wherein said target protein ligand is NFAT and said blocking protein ligand is FKBP----.

IV. In claim 68 line 1, replace "Claim 65" with ----Claim 16----.

V. In claim 74 line 1, replace "Claim 73" with ----Claim 49----.

3. **NO EXTENSIONS OF TIME ARE PERMITTED TO FILE CORRECTED OR FORMAL DRAWINGS, OR A SUBSTITUTE OATH OR DECLARATION**, notwithstanding any indication to the contrary in the attached Notice of Allowability (PTO-37).

Interview Summary	Application No.	Applicant(s)	
	09/716,054	CRABTREE ET AL.	
	Examiner	Art Unit	
	Lisa V. Cook	1641	

All participants (applicant, applicant's representative, PTO personnel):

(1) Lisa V. Cook. (3) _____

(2) Edward J. Baba (Reg. No. 52,581). (4) _____

Date of Interview: 19 January 2007.

Type: a) ☒ Telephonic b) ☐ Video Conference
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.
If Yes, brief description: N/A.

Claim(s) discussed: 16-24, 49-55, and 65-76.

Identification of prior art discussed: response filed 10/26/06 and allowance conference on 12/20/06.

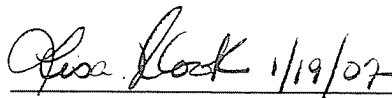
Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Examiner Cook phoned regarding allowable subject matter (NFAT-FKBP). Attorney Baba agreed to include the allowable limitation in independent claims 16 and 49. Claims 24, 55, 66-67, 69-73 and 75-76 would be canceled. These changes are to be made via Examiners Amendment. Accordingly the application was processed for allowance.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.


Examiner's signature, if required

AMENDMENTS TO THE CLAIMS:

1-15 (**Canceled**)

16. (**Currently Amended**) A method of inhibiting a binding event between a target protein (T) and a binding protein (P), comprising:

administering to a cell **in vitro** an effective amount of a non-naturally occurring bifunctional inhibitor molecule (I) of less than 5000 daltons consisting essentially of:

- (a) a target protein ligand that specifically binds to a target protein (T); and
- (b) a blocking protein ligand that specifically binds to a blocking protein (B),

wherein said target protein ligand and said blocking protein ligand are covalently bonded to each other, optionally through a linking group;

in order to non-covalently bind the target protein (T) and the blocking protein (B) to produce a tripartite complex (T-I-B) that prevents access of the binding protein (P) to the target protein (T).

17. (**Original**) The method according to Claim 16, wherein said bifunctional inhibitor molecule comprises a linking group.

18. (**Previously Presented**) The method according to Claim 16, wherein said bifunctional inhibitor molecule (I) binds to a site of said target protein that is also bound by said binding protein (P).

19. (**Previously Presented**) The method according to Claim 16, wherein said bifunctional inhibitor molecule (I) binds to a site of said target protein (T) that is not bound by said binding protein (P).

20. (**Original**) The method according to Claim 16, wherein said tripartite complex is produced intracellularly.

21. **(Original)** The method according to Claim 16, wherein said tripartite complex is produced extracellularly.

22. **(Previously Presented)** The method according to Claim 16, wherein said blocking protein (B) is endogenous to said cells.

23. **(Previously Presented)** The method according to Claim 22, wherein said blocking protein (B) is selected from the group consisting of: peptidyl-prolyl isomerases, Hsp90 (Heat shock protein 90), steroid hormone receptors, cytoskeletal proteins, albumin and vitamin receptors.

24. **(Previously Presented)** The method according to Claim 16, wherein said bifunctional inhibitor molecule (I) is administered as a pharmaceutical preparation.

25.-48. **(Canceled)**

49. **(Currently Amended)** A method of inhibiting a binding event between a target protein (T) and a binding protein (P), comprising:

administering to a cell **in vitro** an effective amount of a non-naturally occurring bifunctional inhibitor molecule (I) of less than 5000 daltons consisting essentially of:

- (a) a target protein ligand that specifically binds to a target protein (T) with a binding affinity of at least about 10^{-4} M; and
- (b) a blocking protein ligand that specifically binds to a blocking protein (B), wherein said blocking protein ligand is a peptidyl-prolyl isomerase ligand,

wherein said target protein ligand and said blocking protein ligand are covalently bonded to each other, optionally through a linking group;

in order to non-covalently bind the target protein (T) and the blocking protein (B) to produce a tripartite complex (T-I-B) that prevents access of the binding protein (P) to the target protein (T).

50. **(Previously Presented)** The method according to Claim 49, wherein said bifunctional inhibitor molecule comprises a linking group.

51. **(Previously Presented)** The method according to Claim 49, wherein said bifunctional inhibitor molecule (I) binds to a site of said target protein that is also bound by said binding protein (P).

52. **(Previously Presented)** The method according to Claim 49, wherein said bifunctional inhibitor molecule (I) binds to a site of said target protein (T) that is not bound by said binding protein (P).

53. **(Previously Presented)** The method according to Claim 49, wherein said tripartite complex is produced intracellularly.

54. **(Previously Presented)** The method according to Claim 49, wherein said blocking protein (B) is endogenous to said cells.

55. **(Previously Presented)** The method according to Claim 49, wherein said bifunctional inhibitor molecule (I) is administered as a pharmaceutical preparation.

56.-64. **(Canceled)**

65. **(Previously Presented)** The method according to Claim 16, wherein said blocking protein ligand is a peptidyl-prolyl isomerase ligand.

66. **(Previously Presented)** The method according to Claim 65, wherein said peptidyl-prolyl isomerase ligand is a ligand for an FKBP or cyclophilin.

67. **(Previously Presented)** The method according to Claim 65, wherein said peptidyl-prolyl isomerase ligand is a ligand for an FKBP.

68. **(Previously Presented)** The method according to Claim 67, wherein said ligand for an FKBP is selected from the group consisting of FK506 and rapamycin.

69. **(Previously Presented)** The method according to Claim 65, wherein said peptidyl-prolyl isomerase ligand is a ligand for a cyclophilin.

70. **(Previously Presented)** The method according to Claim 69, wherein said ligand for a cyclophilin is a cyclosporin.

71. **(Previously Presented)** The method according to Claim 49, wherein said blocking protein ligand is a peptidyl-prolyl isomerase ligand.

72. **(Previously Presented)** The method according to Claim 71, wherein said peptidyl-prolyl isomerase ligand is a ligand for an FKBP or cyclophilin.

73. **(Previously Presented)** The method according to Claim 71, wherein said peptidyl-prolyl isomerase ligand is a ligand for an FKBP.

74. **(Previously Presented)** The method according to Claim 73, wherein said ligand for an FKBP is selected from the group consisting of FK506 and rapamycin.

75. **(Previously Presented)** The method according to Claim 71, wherein said peptidyl-prolyl isomerase ligand is a ligand for a cyclophilin.

76. **(Previously Presented)** The method according to Claim 75, wherein said ligand for a cyclophilin is a cyclosporin.

77.-82. **(Canceled)**